Listing of Claims

1. (Currently amended) A refractometer comprising:

~~with~~ a refractometer prism, on [[the]] a measuring surface of which a sample to be analyzed ~~can be~~ is placed~~, which can be illuminated by~~ ;

a light source for illuminating the sample, wherein the light source comprises a plurality of discrete light sources; ~~in such an angle range that the critical angle of the total reflection is also contained in it, and with~~

a receiver for receiving light reflected from the sample~~, on which the reflected radiation falls,~~ ; and

an optical diffraction grid for reflecting light from each of the discrete light sources into a single light point, wherein ~~the light source comprises a plurality of discrete light sources, which can be activated individually or together, and their radiation can be sent in one point onto the refractometer in a bundled manner~~ the light from each of the discrete light sources having different angle of incidence at the optical diffraction grid and same diffraction angle.

2. (Previously presented) The refractometer of claim 1, wherein the light source comprises a plurality of white light lamps arranged at preset spaced locations next to one another.

3. (Previously presented) The refractometer of claim 1, wherein the light source comprises a plurality of colored LEDs arranged at preset spaced locations next to one another.

4. (Currently amended) The refractometer of claim 3, wherein an interference filter, by means of which the light of the LEDs ~~can be~~ are filtered to a desired wavelength, is arranged downstream of each LED.

5. (Previously presented) The refractometer of claim 1, wherein the receiver is a one-dimensional CCD photodiode cell.

6. (Canceled)

7. (Currently amended) The refractometer of claim [[6]] 4, wherein lenses, which optimize the transmission of the light through the interference filters at the same time and make possible a more defined effective wavelength and full width at half-maximum, are provided to improve the coupling of the light into discrete beam paths.

8. (Canceled)

9. (Canceled)

10. (Currently amended) The refractometer of claim [[8]] 1, wherein a direct vision prism with dispersing property is provided instead of the optical diffraction grid.

11. (Currently amended) The refractometer of claim [[8]] 1, wherein a monochromatic lens is provided instead of the optical diffraction grid.

12. (Currently amended) The refractometer of claim [[8]] 1, wherein a transmission diffraction grid with dispersing property is provided instead of the optical reflection diffraction grid.

13. (Canceled)

14. (New) The refractometer of claim 1, wherein each light source in the plurality of discrete light sources emit different color light.

15. (New) The refractometer of claim 1, wherein each light source in the plurality of discrete light sources are activated individually or together.